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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,128	07/02/2003	Craig M. Wittenbrink	10991644-2	3905

7590 01/24/2005

HEWLETT-PACKARD COMPANY
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EXAMINER

DO, ANH HONG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/612,128	WITTENBRINK ET AL.	
	Examiner	Art Unit	
	ANH H DO	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a supplemental Office Action, which replaces the previous one mailed out on 10/21/2004, to respond to the Remark filed on 7/2/2003. Accordingly, the statutory period for reply is reset to expire 3 months from the mailing date of this Office Action.

Response to Arguments

2. Applicant's arguments filed 7/2/2003 have been fully considered but they are not persuasive.

In response to the Applicant's argument that the cited prior art discloses graphics processing in different parts relative to the graphic pipeline than claim 1, it should be noted Duluk does disclose a method to modify the setup variables by culling out or removing parts of primitives from setup STP (col. 20, lines 55-60), these primitives are from the setup variables, therefore modifying these primitives will change the setup variables. Furthermore, Duluk discloses the method to eliminate portions of primitives that are hidden from view just prior to rasterization, which clearly means the cited prior art performs the method between geometry processing and rasterization. Deering discloses eliminating the type fields by reducing the overhead associated with the packet replacement type (col. 8, lines 33-40). Both references' processes occur between the geometry processing and rasterization. Moreover, claim calls for the method occurs at least partially in geometry processing and rasterization. Deering

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translates the differing geometry input data format into a common format, thus the Deering's method occurs partially in the geometry processing and rasterization.

The cited prior art is therefore properly combinable to render claim 1 obvious.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duluk et al. (U.S. Patent No. 6,229,553) in view of the prior art described in the application (PAA) and Deering (U.S. Patent No. 5,408,605).

Regarding claim 1, Duluk discloses:

- modifying the set of setup variables by eliminating parts of the primitives from the set of setup variables (col. 20, lines 55-60, teaching culling out or removing parts of primitives from setup STP);

- bundling the modified setup variables into a packet of a corresponding predefined packet type (col. 22, lines 50-60, teaching MIJ for reconnecting the VSP packet with its color, light, and texture data (e.g., packet type)).

One skilled in the art would have clearly recognized that the setup unit in Duluk receives the sort of block output packets to facilitate the culling or discarding performed

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by the cull unit. Duluk does not specifically teach identifying the type of a set of setup variables and removing the type filed as claimed.

The PAA, in the same field of endeavor, teaches identifying the type of a set of setup variables (specification, page 2, lines 7-12). The identification would contribute to the enhancement of the system performance by culling the hidden parts of primitives to conserve disk storage (specification, page 3, lines 8-14).

And Deering, in the same field of endeavor, teaches reducing the overhead associated with the packet replacement type to conserve DMA storage (col. 8, lines 33-40).

Therefore, it would have been obvious to identify the setup variables and remove the overhead associated with the packet replacement type in Duluk as taught by the PAA and Deering in order to facilitate the culling or compression and thereby to conserve the disk storage.

Regarding claim 3, since this apparatus claim corresponds to method claim 1, the discussion of claim 1 applies hereto.

Regarding claims 2 and 4, Duluk teaches the packet comprising a header (col. 18, lines 45-47), and the modified set of setup variables in a predefined order (col. 20, lines 48-54).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 18, 2004.



ANH HONG DO
PRIMARY EXAMINER